



Interim Forest Management Plan

Property Identifiers

Property Name: Polk County SIATA

Property Designation or Type: State Ice Age Trail Area

DNR Property Code(s): 9221

Forestry Property Code(s): 4934

Property Location – County: Polk

Property Acreage: 436 total across 4 tracts (as mapped in WisFIRS)

Master Plan Date: None

Property Manager: Kurt Dreger

Property Assessment

A. Ecological Landscape description and property context:

The Forest Transition Ecological Landscape lies along the northern border of Wisconsin's Tension Zone, through the central and western part of the state, and supports both northern forests and agricultural areas. The ecological landscape's flora shows characteristics of both northern and southern Wisconsin, corresponding to its position along the northern margins of the Tension Zone. The central portion of the Forest Transition lies primarily on a glacial till plain that was deposited by glaciation between 25,000 and 790,000 years ago. The eastern and western portions are on moraines of the Wisconsin glaciation from 14,000 to 18,000 years ago. Soils are diverse, ranging from sandy loams to loams or shallow silt loams and from poorly drained to well-drained.

The historical vegetation of the Forest Transition Ecological Landscape was primarily northern hardwood and hemlock-hardwood forests. These mesic forests were dominated by sugar maple and eastern hemlock and contained some yellow birch, red pine, and eastern white pine. Currently, 44% of this ecological landscape is forested compared to 86% forested before Euro-American settlement. Forested areas now consist primarily of northern hardwoods and aspen, with smaller amounts of oak and lowland hardwoods. Coniferous and deciduous swamps are scattered throughout the ecological landscape and are often found near the headwaters of streams or associated with lakes in kettle depressions on moraines. The eastern portion of the ecological landscape differs from the remainder as it is still primarily forested and includes numerous ecologically significant areas, some of them extensive.

Small kettle lakes are common on the moraines in the western and eastern parts of the ecological landscape, but there are few lakes in the central glacial till plain. Several streams have their headwaters in the moraines. Many small creeks and rivers flow across the plain including the Big Rib, Little Rib, Trappe, and Wisconsin rivers. A short stretch of the St. Croix River forms the western boundary of this ecological landscape.



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The four Polk County SIATA parcels in this IFMP are in three different landtype associations (LTA). The Town of St. Croix Falls SIATA is the western-most parcel and is in the Frederic Knolls (212Qa04) LTA. The characteristic landform pattern of the latter LTA is rolling collapsed outwash plain with isolated morainic and bedrock knolls and ridges. Soils are predominantly well-drained sandy loam over outwash.

Straight Lake SIATA is partly in the Frederic Knolls LTA and partly in the Polk Basalt Moraines (212Jd05) LTA. The characteristic landform pattern of the latter is undulating rolling collapsed moraines intermixed with ice-walled lake plains, bedrock knolls and ridges. Soils are predominantly well drained sandy loam over dense, acid sandy loam till or igneous/metamorphic bedrock.

Pine Lake SIATA is partly in the Polk Basalt Moraines LTA and partly in the Lake St Croix Moraines (212Jd01) LTA. The characteristic landform pattern of the latter LTA is rolling collapsed moraine interlaced with outwash terraces and intermixed with ice-walled lake plains. Soils are predominantly moderately well drained sandy loam over dense, acid sandy loam till.

The Town of Lorrain SIATA is the easternmost parcel and is entirely in the Lake St. Croix Moraines LTA.

B. General property description – management, adjacent land uses, topography, soils, etc.:

From west to east, the four parcels in this IFMP are Town of St. Croix Falls SIATA, Straight Lake SIATA, Pine Lake SIATA and Town of Lorrain SIATA.

The Town of St. Croix Falls SIATA is within the city limits of St. Croix Falls. The tracts that make up this SIATA were acquired in the early 2010's and cover about 47 acres. The topography of the parcel ranges from level to moderately steep with south and west facing slopes. The parcel is in a landscape of mixed woods, open fields, developments and scattered houses. It is part of a larger wooded area that extends north-south on fairly rugged topography. The soils include rock outcrops, loams, silt loams, sand loams, and loamy sands. Slopes are up to 25% with some soils being classified as eroded. All of the stands in this parcel have been typed as oak.

The Straight Lake SIATA is immediately south of the village of Frederic and northwest of Straight Lake State Park and Straight River Wildlife Area. It was acquired in 2012 and covers about 73 acres. The parcel is mostly level to moderately sloping about an unnamed intermittent stream. The immediate vicinity of the parcel consists of a mix of farm fields, woods and scattered houses. The landscape is more heavily wooded to the south. The Trade River is just to the south. Soils include mucks, loams, silt loams and sandy loams with up to 20% slopes. Some of the soils are classified as eroded. The stands are typed as northern hardwoods, farm land, pine plantation and emergent vegetation.

Pine Lake SIATA (also known as the Hibbs tract) is located just south of McKenzie Creek Wildlife Area. It was acquired in 2002 and covers 132 acres. Topography is level to steep, with up to 35% slopes. It is in a landscape of a fairly even mix of farmland and woods. Wetlands and small lakes are common, and houses are scattered throughout the wooded areas. Soils include loams, silt loams, sandy loams, gravelly sandy loams and mucks. Cover types include grasses, aspen, northern hardwoods and emergent vegetation.

Town of Lorrain SIATA (also known as the Haas tract) is just to the east-northeast of McKenzie Creek Wildlife Area. There is Polk County Forest to the east and west of the SIATA. It was acquired in 2005 and covers 200 acres. The topography is level to



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moderately steep, with generally north-facing slopes (up to 20%) centered on short, intermittent unnamed streams that drain into a larger wetland on the north end of the SIATA. This parcel is part of a larger, more continuous wooded block, especially east and west. Toward the north, the landscape grades into a more even mixture of farm fields and woods. There are scattered lakes and wetlands throughout the area. Soils include silt loams, sand loams, loamy sands and mucks. Cover types include oak, aspen, conifer plantations and emergent vegetation. The oak forest connects disjunct county forest parcels to create a larger block of forest, providing important habitat for forest interior species including birds. Prior to acquisition, this parcel was in forest crop law and periodic timber harvests were conducted.

C. Current forest types, size classes and successional stages:

Oak (31%) 134 acres; dates of origin 1913-1916; all large sawlogs; dominated by red oak, white oak, ironwood

Aspen (15%) 65 acres; dates of origin 1953-1998; seedlings/saplings to hardwood poles; dominated by aspen, oak

Northern Hardwoods (10%) 45 acres; hardwood small sawlogs to large sawlogs; dominated by sugar maple, elm

Red Pine (5%) 21 acres; all plantation; dates of origin 1966-1984; softwood pole to softwood small sawlogs; dominated by red pine, white pine

White Spruce (1%) 6 acres; all plantation; date of origin 1966; softwood small sawlogs; dominated by white spruce

White Pine (<1%) 3 acres; all plantation; date of origin 1966; softwood small sawlogs; dominated by white pine

Non-forested cover types (37%) 162 acres; include farmland, grassland, emergent vegetation

D. NHI: Endangered, threatened, Special Concern species, Species of Greatest Conservation Need (SGCN):

Two state threatened animals have been documented on or in the vicinity of these four SIATA; one species is also a federal species of concern. Additionally, 12 rare aquatic species have been documented in the St. Croix River in the vicinity of the Town of St. Croix Falls SIATA. Four rare plant species have been documented on or in the vicinity of the four SIATA: one state threatened and three of special concern. Three of the four plant records are based on historical occurrences.

E. Wildlife Action Plan Conservation Opportunity Areas (COA), Important Bird Areas (IBA):

The Pine Lake and Town of Lorain SIATAs are in the Straight Lake COA; Straight Lake SIATA is less than one mile west of the Straight Lake COA. There are no COAs in the immediate vicinity of the Town of St. Croix Falls SIATA.

F. Significant cultural or archeological features:

- a. No archeological or historic sites have been identified in the state database. Old home/farm sites (early 20th century) are present. Any forest management projects will follow manual code procedures to avoid impacts to cultural and archeological sites.

G. Invasive species:

Known species include scattered buckthorn and honeysuckle.

H. Existing State Natural Areas (SNA) designations/natural community types limited in the landscape:

None



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I. Primary public uses:

The primary purpose of State Ice Age Trail Areas is to permanently protect segments of the Ice Age National Scenic Trail and the natural resources along it for present and future public use and enjoyment. The purpose, use and management of the IAT are found in NR 1.29. Each of the SIATA in this IFMP has a completed segment of the Ice Age Trail. The Ice Age Trail is primarily an off-road hiking and backpacking trail that provides excellent opportunities for sightseeing, wildlife viewing and bird watching. Hunting and trapping opportunities vary with individual parcel, depending on SIATA size and trail configuration. Those opportunities, including maps and other information, can be found at <http://dnr.wi.gov/topic/parks/hunt/>.

J. Biotic Inventory Status:

Two (Pine Lake and Town of Lorain) of the four SIATA were inventoried for natural communities, breeding birds and rare plants in 2013 as part of a statewide rapid ecological assessment of SIATAs that are larger than 100 acres.

K. Deferral/consultation area designations:

None

IFMP components

Management Objectives:

1. Promote large blocks of larger diameter hardwoods (oak and northern hardwoods).
2. Retain sufficient canopy closure to maintain suitable habitat for forest interior species, including birds.
3. Maintain structural complexity for dependent animal species, unless standing snags and legacy trees pose a safety risk.
4. Convert aspen stands to long-lived hardwood species, especially northern hardwoods.
5. Promote and enhance the natural regeneration of white pine while managing existing conifer stands.
6. Preserve the integrity of known archaeological and historical features by following DNR Manual Code 1810.1 (Historic Preservation), the department's Burials, Earthworks, and Mounds Preservation Policy & Plan, state statutes and federal laws.
7. Conduct invasive species management where needed to ensure regeneration of adequate numbers of desirable tree species.

Property Prescriptions:

1. **Oak and northern hardwoods** - Maintain blocks of oak and northern hardwoods where they exist. Thin stands periodically to improve stand health, species composition and density. Generally thin stands when stand basal area reaches 125-130 square feet per acre, thinning to a variable residual basal area to between 80 and 100 square feet per acre, maintaining at least 70% canopy cover for forest interior animals. Management prescriptions for each site will be specific depending upon exact silvicultural, ecological, and wildlife objectives for the stand.
2. **Aspen** - Delay an aspen-only harvest to age 70 or 80, keeping any advanced hardwood regen at the time. The delayed aspen only harvest would take two rotations to get to full hardwood conversion.
3. **Upland conifer** - Even-aged management with periodic thinning and an extended rotation age will be used in plantations to slowly convert them to a mix of tree species where pine will continue to be a component of the stand.
4. **All stands** - retain standing dead snags and reserve/legacy trees as groups or individuals throughout the property within harvested stands.



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5. Ice Age Trail and associated corridor – Maintain an aesthetic buffer within 50 feet of the Ice Age Trail; hazard trees may be considered for removal from along the trail as part of timber sales. Follow IFMP trail guidance and Parks timber harvest guidelines to avoid impacts from timber management to established and proposed segments of the IAT.

Summary of Public Involvement and Comments Received:

No comments were received.

Maps (Optional)

- a. Locator map of the SIATA addressed in this IFMP
- b. Cover type map for Town of St. Croix Falls SIATA
- c. Cover type map for Straight Lake SIATA
- d. Cover type map for Pine Lake SIATA
- e. Cover type map for Town of Lorain SIATA

PREPARED BY:

Kurt D. Dreyer 11/8/17
Property Manager Date

APPROVED:

M. J. [Signature] 1/11/18
Area Program Supervisor Date

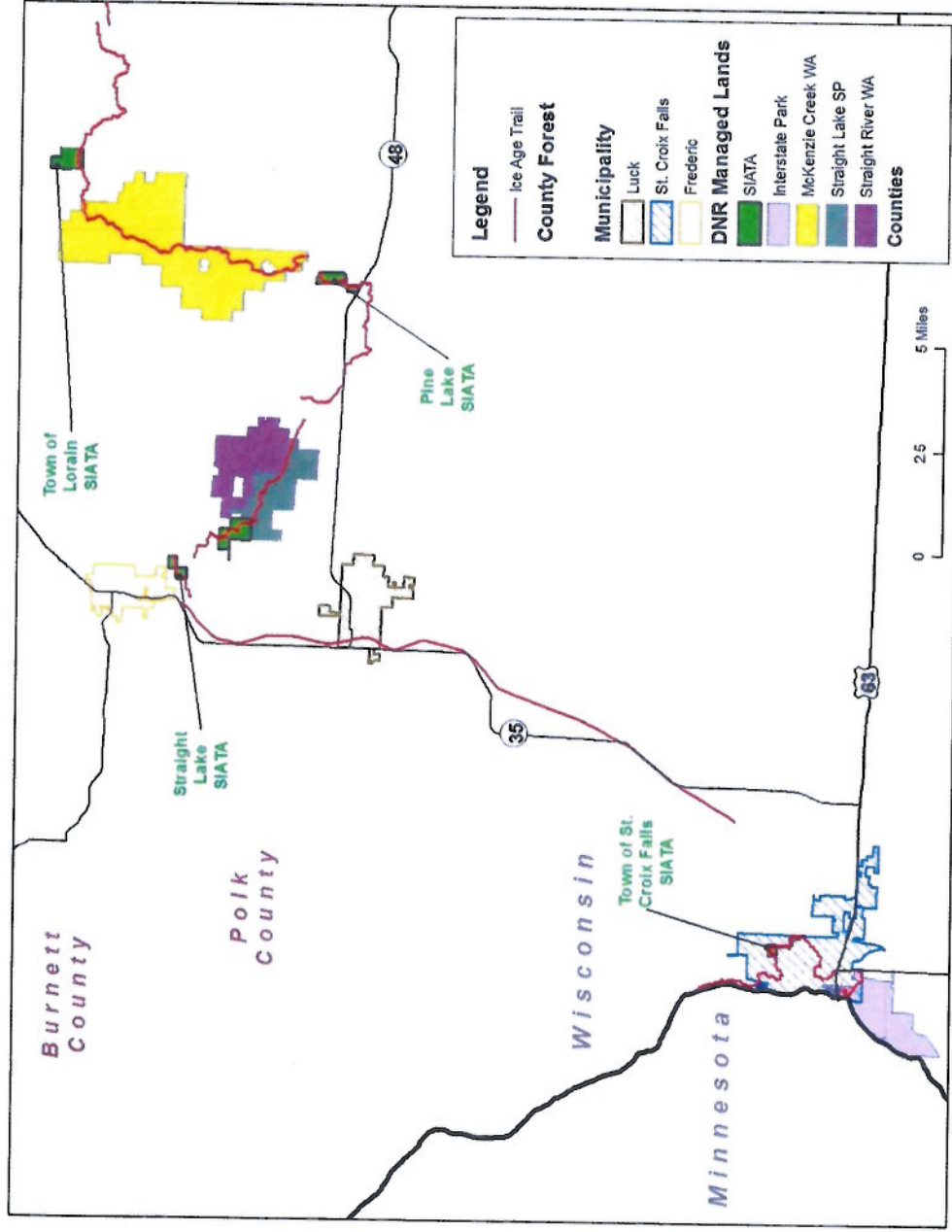
REVIEWED BY:

[Signature] 1-12-18
Forester Date

[Signature] 1-12-18
District Ecologist Date



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a. Locator map of the SIATA addressed in this IFMP



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b. Cover type map for Town of St. Croix Falls SIATA

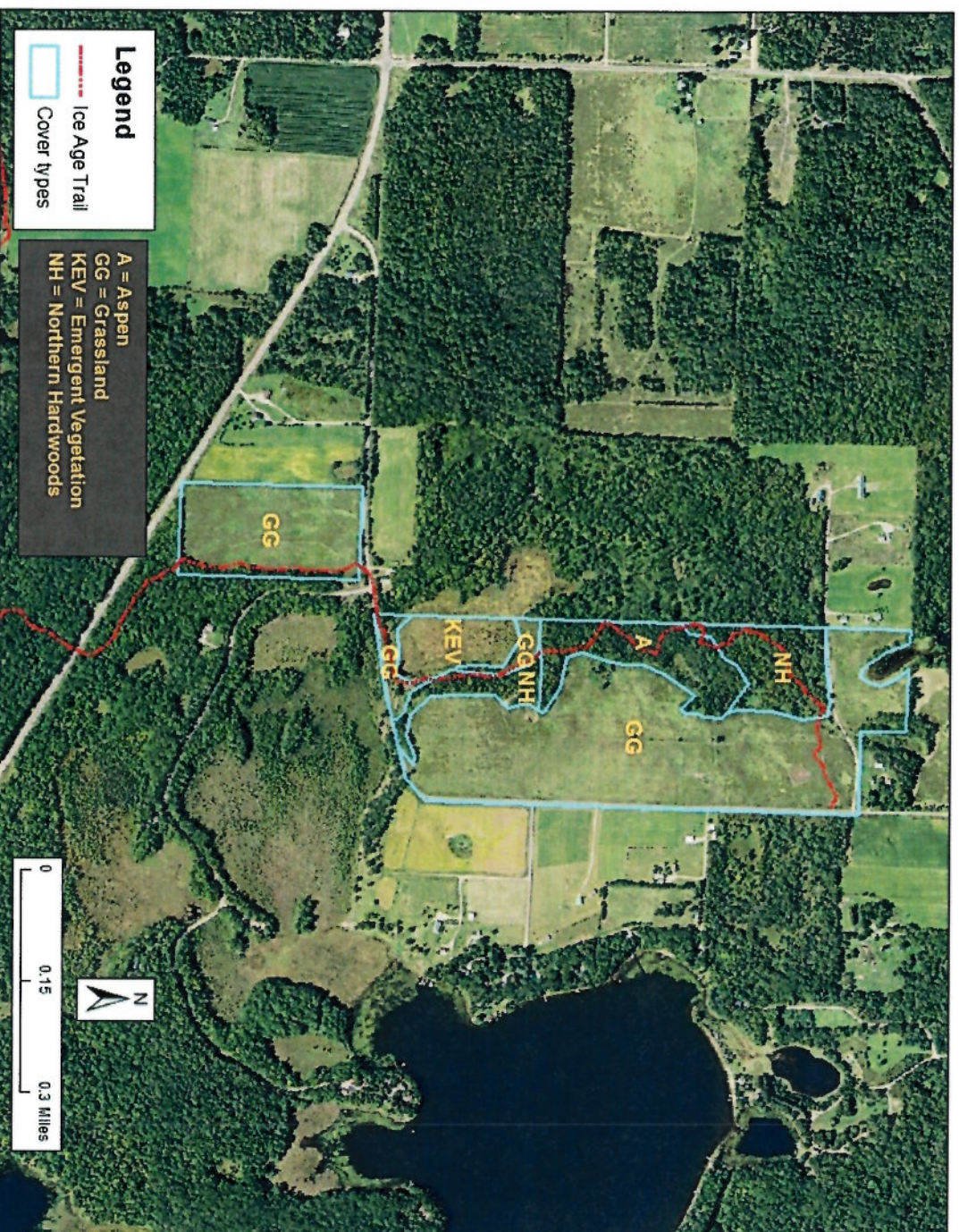


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c. Cover type map for Straight Lake SIATA

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d. Cover type map for Pine Lake SIATA

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e. Cover type map for Town of Lorain SIATA